

REMARKS

Reconsideration of the patent application in view of the preceding amendments and the following remarks is respectfully requested. Applicants have corrected the typographical error in claim 6, which was noted by the Examiner.

I. Rejection of the Claims Under 35 U.S.C. § 102

In the office action dated March 21, 2003 the Examiner rejected claims 1-15 under 35 U.S.C. § 102. The Examiner stated that the claimed invention was anticipated by Wical (U.S. Patent No. 5,953,718). Applicants respectfully traverse the Examiner's rejection.

A. To Anticipate a Claim, a Reference Must Teach Every Element of the Claim.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). "The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, *i.e.*, identity of terminology is not required." *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). *MPEP 2131*.

B. A Claim Term Is Not Necessarily a Claim Element

A claim term is any word or phrase in either the preamble or body of a claim. A claim element, on the other hand, refers to the smallest collection of claim terms that fully expresses a limitation or boundary of an invention. Sometimes a claim term is a claim element, but most of the time the two concepts are not coincident.

As an example, certain claim terms in the following article of manufacture claim are claim elements:

A chair comprising: legs; a seat; and, a back.

The claim terms “legs,” “seat,” and “back” are also claim elements, since the words *per se* each express a complete idea of a chair section. One does not need any further description to convey the notion of the limitations of the claimed invention.

If one modifies the above-presented claim such that each noted claim term is further described, then the terms cease to be claim elements. For example:

A chair comprising: legs, wherein the legs are rectangular in shape and at least 24 inches long; a seat, wherein the seat is circular in shape having a diameter of less than 30 inches; and, a back, wherein the back comprises at least 3 slats.

Now, the first claim element is “rectangular shaped legs at least 24 inches long”; the second is “a circular seat having a diameter less than 30 inches”; and, the third is “a back that has at least 3 slats.” The simple claim terms “legs,” “seat,” and “back” no longer convey the exact claim limits to one of ordinary skill in the art.

C. A Separate Discussion of Claim Terms Is Not a Disclosure of a Claim Element Containing a Combination of the Terms.

A document can present a number of individual claim terms but not disclose a claim element consisting of those terms. That is because the way in which terms are combined makes all the difference: Three different combinations of terms can produce three different claim elements. Take a document concerning books, for instance, that discusses three terms in separate sections: 1) a red book; 2) a Russian book; and, 3) a war book. The document discloses neither a “red book about war written in Russian,” nor a “red Russian war book.”

D. Claim 1 of the Instant Application Contains Six Different Elements.

Claim 1 contains six different limitations, or elements, on a method for generating cross-references among categories in a knowledge base. The elements are as follows:

1) extracting, from a plurality of documents, a plurality of themes, wherein a theme identifies subject matter contained in a corresponding document

2) generating a theme strength for said themes, said theme strength reflects the amount of subject matter contained in a document for a corresponding theme relative to other themes in said document

3) generating a plurality of scores, from said theme strengths to identify a relative theme pair strength for at least one pair of said themes extracted from said documents, said theme strength reflects the amount of subject matter contained in a document for a corresponding theme relative to other themes in said document

4) selecting theme pairs based on said scores

5) selecting category pairs in said knowledge base by mapping said themes of said theme pairs selected to corresponding categories of said knowledge base

6) generating a cross reference in said knowledge base between categories of said category pairs, wherein said cross reference identifies an association between said category pairs

E. Wical Does Not Disclose the Combination of Elements Recited in Claim 1.

In rejecting claim 1 over Wical, the Examiner points to various, separate claim terms he allegedly found in the reference and improperly combines them to arrive at the elements of the claim.

1. Wical Does Not Generate a Cross Reference Between Category Pairs Based On an Identified Theme Pair.

Claim 1 recites a method for generating cross-references among categories in a knowledge base. The method requires that at least one theme pair be identified from a set of documents (element 3), that category pairs be selected based on theme pairs (element 5), and that a cross-reference be generated between the category pairs. In other words, claim 1 recites a method for automatically determining weighted relationships between various categories in a knowledge base.

This method is a departure from what had been described before. Specifically, in other reported cross-referencing methods, cross-references between categories were determined prior to document processing by a professional such as a linguist. This “predetermination” is described in Wical:

The cross reference associations are predetermined (e.g., prior to document processing) by a linguist. In general, the linguist develops cross reference associations when two terms/categories have a strong linguistic, semantic, or usage relationship. For example, a linguist may generate a

cross reference association to denote the strong association between the term “Eiffel Tower” and the category “France.” [Col. 17, lns 40-47]

The reported methods, therefore, involved a substantial amount of tedious, human labor, to arrive at a limited number of category cross-references. Furthermore, once the cross-references were “predetermined,” they could not be altered until a round of document processing was completed.

To support his rejection of claim 1, the Examiner points to a variety of terms located in disparate locations within Wical. The Examiner combines statements from two different sections, for instance, to arrive at the claim term, “identifying relative theme pair strength for at least one pair of themes”: He adds the notion of ranking themes according to their theme strength (col. 7, lns 28-37) with that of the addition of theme weights to arrive at a total, quantitative theme score (col. 7, ln 61). Applicants respectfully submit that such a combination does not result in the subject claim term.

As to the selection of category pairs based on theme pairs, the Examiner points to the following portion of Wical: “The knowledge base **155**, which includes categories, classified for documents **130**, identifies relationships among index heads, index context entries, and themes.” The referenced statement from Wical simply seems to discuss that there are categories that identify relationships among themes. It says nothing about selecting categories, in pairs, that are related to identified theme pairs. This is due to the fact that Wical does not disclose Applicants’ method to automatically generate category cross-references.

Finally, the Examiner addressed the generation of cross references between category pairs. He alleged that such generation was disclosed in Wical at column 16, lines 54-57: “When utilizing the knowledge base **155** to process queries, the distinction between a link association and cross reference association is made as described more fully below.” Respectfully, this statement concerns the difference between two associations and does not concern the generation of cross references. Nothing is disclosed at all in this section regarding the way in which cross references are determined. Applicants respectfully contend, therefore, that the Examiner has taken various phrases from the cited art—in some cases modifying their clear meaning—and tortuously combined them in an attempt to arrive at Applicants’ invention. Applicants submit that this improper combination of phrases does not support a rejection under 35 U.S.C. 102 and that the rejection should be withdrawn.

II. Independent Claims 6 and 11 Contain Similar Elements to Those of Claim 1.

Claims 2-5 depend from claim 1, and the other independent claims (*i.e.*, 6 and 11) contain similar elements to those of claim 1. Applicants contend, therefore, that the same patentability arguments presented above for claim 1 apply to the rest of the claims at issue. Applicants, as with claim 1, submit that the Examiner’s rejection under 35 U.S.C. 102 should be withdrawn for claims 2-15.

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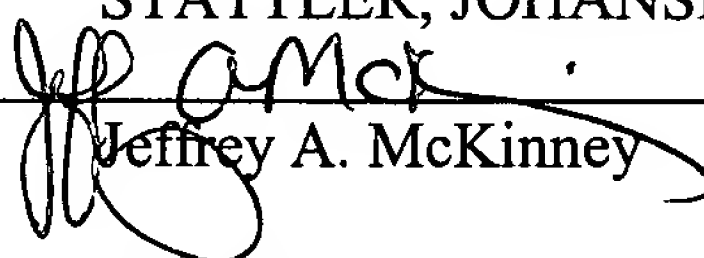
CONCLUSION

In view of the foregoing, it is submitted that the claims are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance is earnestly solicited at the earliest possible date.

Respectfully submitted,

Dated: 6/6/03

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THE AMENDED CLAIMS

The following pages provide the amended claims with the amendments marked with deleted material in [brackets] and new material underlined to show the changes made.

[7] 6. (Twice Amended) A system comprising:

a search and retrieval module for receiving a user query and for generating a query response including query feedback;

a knowledge base, coupled to said search and retrieval module, for storing relationships among terminology for use as query feedback;

a knowledge base processing system, coupled to said knowledge base for processing a plurality of documents and automatically extending said relationships among said terminology in said knowledge base, said knowledge base processing system for extracting, from said documents, a plurality of themes, wherein a theme identifies subject matter contained in a corresponding document, for generating a theme strength for said themes, said theme strength reflects the amount of subject matter contained in a document for a corresponding theme relative to other themes in said document, for generating a plurality of scores, from said theme strengths, to identify a relative theme pair strength for at least one pair of said themes extracted from said documents, for selecting theme pairs based on said scores, for selecting category pairs in said knowledge base by mapping said themes of said theme pairs selected to corresponding categories of said knowledge base, and for generating a cross reference in said knowledge base between categories of said

category pairs, wherein said cross reference identifies an association between said
category pairs.